Remarks/Arguments

Claims 1-21 are pending in the present application.

Claims 1-19 are rejected.

Claim 8 is amended herein.

Claims 20 and 21 are new.

1. Objections to the Drawings

In the Office Action, the drawings stand objected to for allegedly failing to comply with 37 CFR 1.84(p)(4). More specifically, it was stated, with respect to Figure 5, reference character 30 has been used to designate both the wafer and the imprinting layer. Furthermore, it was stated, Figures 6A and 6B contain a reference numeral 44 which is not properly disclosed in the specification. To that end, Applicants have amended Figure 5 such that character 30 designates the wafer and have amended Figures 6A and 6B such that reference numeral 44 is replaced with reference numeral 20 to properly identify the motion stage. No new matter has been introduced by these amendments.

2. Claim 1

In the Office action, claim 1 stands rejected pursuant to 35 USC section 102(e) as allegedly being anticipated by United States patent application publication 2004/0036201 to Chou et al. [hereinafter Chou] which claims priority to United States provisional patent application 60/382,961 having a filing date of 24 May 2002.

Claim 1 defines a patterning system including, *inter alia*, a bifurcated heat transfer mechanism having a surface; and a source to direct thermal energy toward said bifurcated heat transfer mechanism, with said bifurcated heat transfer mechanism collecting said thermal energy and conducting said thermal energy to said surface.

Chou is completely silent with respect to a bifurcated heat transfer mechanism collecting thermal energy and conducting the thermal energy to a surface thereof. Rather Chou teaches a mold and a substrate each comprising a layer of conductive or chargeable material [hereinafter LAYERS] employed to generate electrical or magnetic forces between the mold and the substrate to press the mold into a moldable surface of the substrate. See ¶ [0023] and ¶ [0029]. Further, referring to ¶ [0023] it is stated, "an electric field for imprinting the substrate can be created between appropriately dissimilar materials by the use of light, heat or RF radiation." Chou is completely silent with respect to the LAYERS collecting the light, heat or RF radiation, much less conducting the thermal energy to a surface thereof. Thus it becomes clear that Chou does not teach Applicants' claimed invention of a bifurcated heat transfer mechanism collecting thermal energy and conducting the thermal energy to a surface thereof.

Furthermore, Chou teaches away from Applicants' claimed invention by teaching the LAYERS and the substrate are "transparent to radiation which can be used to soften or cure the moldable surface" of the substrate. See ¶ [0032]. As a result of the LAYERS being transparent to radiation, the LAYERS may not be responsive to the radiation and thus the LAYERS may not collect thermal energy directed thereupon, as described by Applicants' claimed invention. Thus, it becomes evident that Chou teaches away from Applicants' claimed invention by teaching the LAYERS and the substrate being substantially transparent to the radiation.

Based upon the foregoing, Applicants respectfully contend that Chou does not anticipate the invention defined by claim 1 and a *prima facie* case of obviousness is not present with respect to claim 1.

3. Claim 8

In the Office action, claim 8 stands rejected under 35 USC section 103(a) as allegedly being unpatentable over Chou in view of United States published patent application publication 2005/0037143 to Chou et al. [hereinafter Chou2] which claims priority to United States provisional patent application 60/477,161 having a filing date of 9 June 2003.

In addition to the arguments set forth above with respect to claim 1, claim 8, as amended, defines a patterning system including, *inter alia*, a source of radiation to direct radiation toward a target; a wavelength discriminator to selectively allow first and second subsets of the radiation to reach the target, with the first subset including thermal energy; a mold positioned to allow the first and second subsets to propagate there through; and a thermal absorption layer, having a surface, disposed to collect the first subset and develop a localized heat source therein having heat energy associated therewith, with the heat source conducting the heat energy to the surface while maintaining a constant phase state.

Furthermore, Chou2 teaches illuminating at least a portion of a test pattern [imprinted test features] with radiation. See ¶ [0051]. To that end, "[i]llumination can be facilitated by using...a relative transparent substrate[.]" See ¶ [0051]. This is done such that Chou2 may measure light "transmitted through the illuminated test structure and the moldable material[.]" See ¶ [0038]. To that end, information relating to the measured light may be extracted and a signal may be generated based upon the information for controlling imprinting processes and materials. See ¶ [0039] - [0041]. As mentioned above, Applicants claim a bifurcated heat transfer mechanism, having a surface, that collects thermal energy and conducts the thermal energy to the surface thereof. To that end, were Chou2 modified to include Applicants' claimed invention, and more specifically, were Chou2 modified such that the substrate may collect thermal energy, the substrate of Chou2 would not be substantially transparent to

the radiation, and thus, Chou2 would not be able to measure light transmitted through the test structure, which is undesirable.

Based upon the foregoing, Applicants respectfully contend that a *prima facie* case of obviousness is not present with respect to claim 8, as amended.

3. Claim 14

Applicants respectfully contend that the arguments set forth above with respect to claims 1 and 8, as amended, applies with equal weight here and that claim 14 defines an invention suitable for patent protection.

4. New Claims 20 and 21

Applicants respectfully contend that the arguments set forth above with respect to claims 1 and 8, as amended, applies with equal weight here and that new claims 20 and 21 defines an invention suitable for patent protection.

5. The Non-obviousness of the Dependent Claims

Considering that the dependent claims include all of the features of the independent claims from which they depend, these claims are patentable to the extent that the independent claims are patentable. Therefore, Applicants respectfully contend that the dependent claims define a system suitable for patent protection.

Applicants respectfully request examination in view of the remarks. A notice of allowance is earnestly solicited.

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to the Commissioner for Patents.

Signed: _____
Typed Name: Jennifer Cowlishaw
Date: June 13, 2008

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Respectfully Submitted,

Michael D. Carter
Reg. No. 56,661
Registered Patent Agent
Legal Department
Molecular Imprints, Inc.
P.O. Box 81536
Austin, Texas 78708-1536
Telephone: 512-339-7760
Facsimile: 512-491-8918

Amendments to the Drawings:

The attached sheets of drawings include changes to Figs. 5, 6A, and 6B correcting various informalities. These sheets, which include Figs. 5, 6A, and 6B, replace the original sheets including Figs. 5, 6A, and 6B. Also attached are red-lined Annotated Sheets Showing Changes to Figs, 5, 6A, and 6B.

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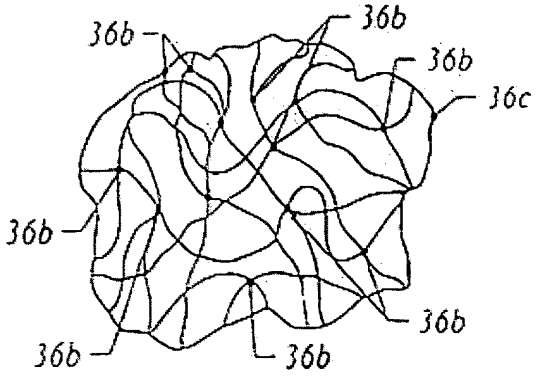

FIG. 4

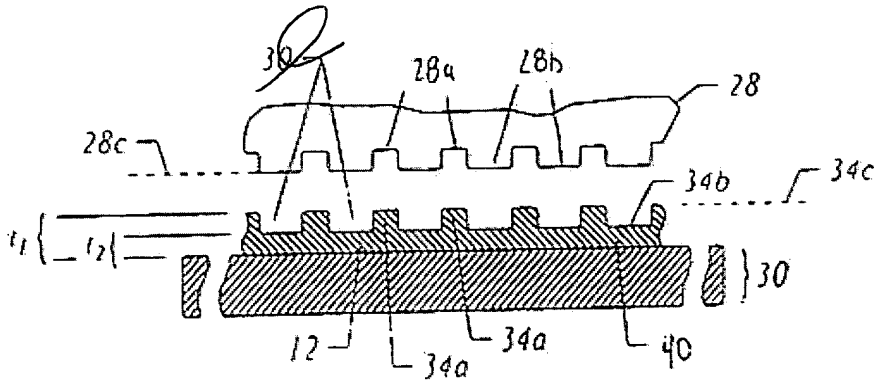

FIG. 5

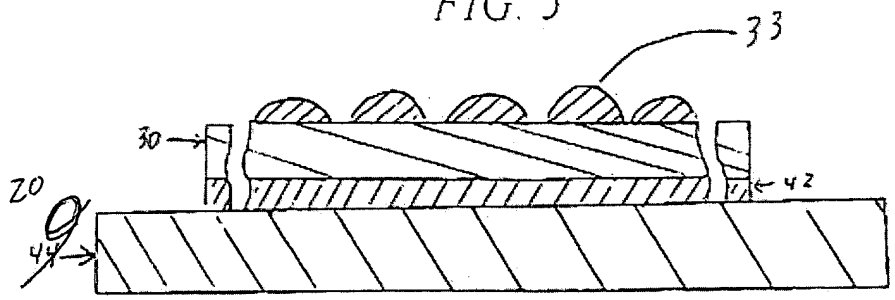

Fig. 6A

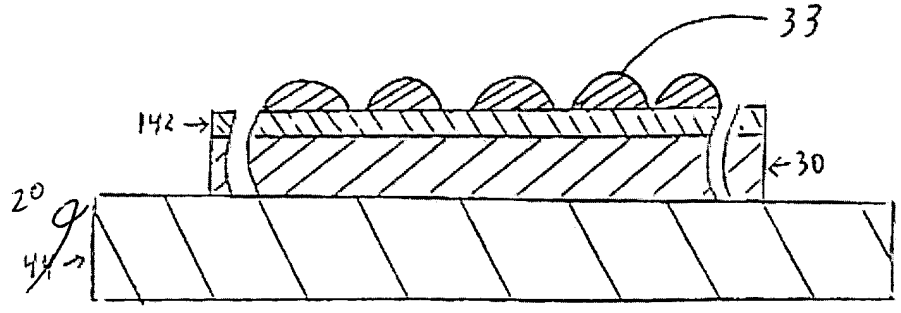

Fig 6B